



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,553	10/17/2003	Terence Daniel Pickett	15898D1C-US	1166

7590

01/04/2005

Darin E. Bartholomew  
Patent Department  
DEERE & COMPANY  
One John Deere Place  
Moline, IL 61265-8098

EXAMINER
----------

ALI, MOHAMMAD

ART UNIT	PAPER NUMBER
----------	--------------

2167

DATE MAILED: 01/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/688,553

Applicant(s)

PICKETT ET AL.

Examiner

Mohammad Ali

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☒ Claim(s) 1-37 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This communication is in response to the application filed on October 17, 2003.

#### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-37 are rejected under 35 U.S.C. 101 because claimed invention is directed to non-statutory subject matter. These claims are not in Technological Arts, since no technology is recited.

Appropriate correction is required.

#### ***Double Patenting***

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-10, 12-27, 29-37 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-35 of U.S.

Patent No. 6,671,698. Although the conflicting claims are not identical, they are not

Art Unit: 2167

patentably distinct from each other because they are substantially similar in scope and they use the same limitations.

Claims 1, 14 and 23 of the '698 reference recites all the elements of claims 1-10, 12-27 and 29-37 of instant application. Claim 1-35 of the '698 reference also includes additional elements that are not recited in the instant claims.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to omit the additional elements of claims 1, 14 and 23 to arrive at the claims 1, 15 and 24 of the instant application because the person would have realized that the remaining element would perform the same functions as before.

"Omission of element and its function in combination is obvious expedient if the remaining elements perform same functions as before." See *In re Karlson* (CCPA) 136 USPQ 184, decide Jan 16, 1963, Appl. No. 6857, U. S. Court of Customs and Patent Appeals.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ollis et al. ('Ollis' hereinafter), "First results in vision-based crop line tracking" in view of Saich et al. ('Saich' hereinafter), "Interpreting ERS SAR signatures of agricultural crops in Flevoland, 1993-1996.

With respect to claim 1,

Ollis discloses a method of tracing a crop (see sec. 1, para. 1, pg. 951) comprising:

electronically recording at least one of planting information, growing information, harvesting information, chemical application information, and weather information for a particular crop from a defined geographic area (see sec. 1, para. 1-2, pg. 951, Ollis);

forming a respective data profile for the particular crop based on the recorded information (see sec. 1, pg. 951, Ollis);

segregating the particular crop after harvesting from intermixing with other harvested crops (see sec. 2, para. 1, pg. 952, Ollis);

electronically recording a storage identifier associated with one or more corresponding storage volumes for holding the segregated particular crop (see sec. 3.1, pg. 953); and

associating the formed data profile with the storage identifier for each of the one or more storage volumes for holding the segregated particular crop (see sec. 4, pg. 955, Ollis).

Ollis does not explicitly indicate claimed volumes.

Saich discloses claimed volumes (see Table I).

It would have been obvious to one ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because volumes of Saich's teaching would have allowed Ollis system for information on soil moisture for mature forests in summer, as suggested by Saich at page 206, right, para 2.

As to claim 2,

Ollis teaches wherein the segregating comprises placing the particular crop in the one or more storage volumes, each storage volume having a corresponding storage identifier (see sec. 2, para. 1, pg. 952, Ollis).

As to claim 3,

Ollis teaches delivering at least one of the one or more storage volumes with the segregated particular crop therein to a recipient and making at least a portion of the data profile for the segregated particular crop available to the recipient (see sec. 3.1, para. 1, pg. 953, Ollis).

As to claim 4,

Ollis teaches placing the particular crop in one or more containers as said storage volumes without first accumulating the crop in a bulk unit larger than the capacity of the one or more containers into which the particular crop is placed (see sec. 3.2, pgs. 953-54, Ollis).

As to claim 5,

Ollis teaches placing the particular crop in the one or more containers as said storage volumes when the crop is discharged from a harvesting machine. (see sec. 2, para. 1, pg. 952, Ollis)

As to claim 6,

Ollis teaches discharging the particular crop from a harvesting machine into an intermediate vessel (see sec. 2, page 952, Ollis);

removing the crop from the intermediate vessel into the one or more storage volumes (see section 3.2, pages 953-954, Ollis);

recording transit information regarding time and location of the discharging of the crop into the intermediate vessel and the removing the crop from the intermediate vessel (see sec. 3.1, ;page 953, Ollis); and

associating a data profile, including the recorded transit information, with the storage identifier of the one or more storage volumes for receiving the particular harvested crop (see sec. 4, page 955, Ollis).

As to claim 7,

Ollis teaches wherein each one of the storage volumes is selected from the group consisting of a segregated storage bin, a container, and an inter-modal freight container (see sec. 3.2, pg. 953-954, Ollis).

As to claim 8,

Ollis teaches storing the data profile of the particular crop on or in the one or more storage volumes (see sec. 4, pg. 955, Ollis).

As to claim 9,

Ollis teaches wherein the storing comprises storing the data profile in at least one of the following: a barcode, an radio-frequency tag, an electronic tag, and an electronic data memory device carried in or on each of the one or more storage volumes (see sec. 4, pg. 955, Ollis).

As to claim 10,

Ollis teaches electronically transmitting the data profile of the particular crop to one or more potential users of the particular crop via a communications network to facilitate sales to, acquisition by, deliveries to, or process control of the particular crop by one or more potential users (see sec. 2, pg. 953, Ollis).

As to claim 11,

Ollis teaches receiving adjacent crop information regarding an adjacent crop in an adjacent location with respect to the particular crop, the adjacent crop information including one or more of a precursor identity for the particular crop, a seed identity, a stock identity, a seed source, a stock source, a seed parentage, a stock parentage, a precursor genetic history, a crop maturity, a planting date, a planting location, the soil



Art Unit: 2167

conditions at a planting time, or any chemical application for the adjacent crop (see sec. 2, para. 1, pg. 952, Ollis);

combining the adjacent crop information into the data profile for the particular crop (see sec. 4, pg. 955, Ollis); and

tailoring a genetic test of the particular crop based on a genetic make-up of the adjacent crop (see sec. 4, pg. 955, Ollis).

As to claim 12,

Ollis teaches sending a load of profile data and corresponding storage identifier in response to a triggering event associated with operation of an agricultural machine (see sec. 3.2, pg. 954, Ollis).

As to claim 13,

Ollis teaches wherein the triggering event comprises an operator request to shut-down or turn-off an agricultural machine (see sec. 2, para. 1, pg. 952, Ollis).

As to claim 14,

Ollis teaches wherein the defined geographic area is selected from the group consisting of a field location, a sub-field location, geographic coordinates defining the field location, geographic coordinates defining the sub-field location, and geographic coordinates defining a boundary of a region (see sec. 3.2, pg. 954, Ollis).

With respect to claim 15,

Ollis discloses a method of tracing a crop (see sec. 1, para. 1, pg. 951), the method comprising:

electronically recording planting information about the characteristics of a particular crop from a defined geographic area, the planting information including at least one of a planting date, a planting time of day, a precursor identity for the particular crop, a seed identity, a seed identity, a seed source, a stock source, a planting location, a precursor genetic history, a seed parentage, a stock parentage, a crop maturity date, a planting date, a planting location, soil conditions at a planting time, and any chemical application; segregating the crop after harvesting from intermixing with other harvested crop by placing the crop in one or more containers each having a container identifier (see sec. 1, para. 1-2, pg. 951 et seq, Ollis);

electronically recording the container identifier of the one or more containers (see sec. 2, para. 1, pg. 952, Ollis); and

associating a data profile, including the planting information, with the container identifier for each of the one or more containers (see sec. 3.1, pg. 953, Ollis).

Ollis does not explicitly indicate claimed container identifier.

Saich discloses claimed container identifier (see Table I).

It would have been obvious to one ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because container identifier of Saich's teaching would have allowed Ollis system for information on soil moisture for mature forests in summer, as suggested by Saich at page 206, right, para 2.

As to claim 16,

Ollis teaches arranging the data profile to contain at least one of the recorded planting information, growing information, and harvesting information (see sec. 2, para. 1, pg. 952, Ollis).

As to claim 17,

Ollis teaches electronically recording growing information about further characteristics of the particular crop including at least one of chemical data, fertilizer data nutrient data, pesticide data, herbicide data, fungicide data, irrigation data, water data, temperature data, sunlight data; a rate of application of at least one of a chemical, fertilizer, nutrient, pesticide, herbicide, fungicide, water, or another crop input (see sec. 2, para. 1, pg. 952, Ollis); and rate of application versus location of application of at least one of a chemical, fertilizer, nutrient, pesticide, herbicide, fungicide, water, or another crop input (see sec. 3, pg. 954, Ollis).

As to claim 18,

Ollis teaches electronically recording harvesting information about further characteristics of the particular crop including at least one of a harvesting date, a harvesting location where harvested, a yield of the harvested particular crop, a moisture content of the harvested particular crop, a physical condition of the harvested particular crop, and settings of a harvesting machine used to harvest the particular crop, and an identifier of the one or more storage volumes into which the harvested particular crop is placed (see sec. 2, para. 1, pg. 952, Ollis).

As to claim 19,

Art Unit: 2167

Ollis teaches combining the recorded planting information and the recorded harvesting information to form the data profile based on recorded planting location information and recorded harvesting location information for the particular crop, such that the planting location information is correlated to respective harvesting location information for the defined geographic area in which in the particular crop is grown (see sec. 2, para. 1, pg. 952, Ollis).

As to claim 20,

Ollis teaches electronically recording the planting location information where planted during or after the planting of a precursor to the particular crop (see sec. 3, pg. 954, Ollis); and electronically recording the harvesting location where harvested during or after the harvesting of the particular crop (see sec. 2, para. 1, pg. 952, Ollis).

As to claim 21,

Ollis teaches wherein the defined geographic area is selected from the group consisting of a field location, a sub-field location, geographic coordinates defining the field location, geographic coordinates defining the sub-field location, and geographic coordinates defining a boundary of a region (see sec. 3, pg. 954, Ollis).

As to claim 22,

Ollis teaches applying at least one of fertilizer, insecticide, herbicide and another chemical before or after planting of the particular crop (see sec. 2, para. 1, pg. 952, Ollis); recording chemical information regarding the application of at least one of the fertilizer, insecticide, herbicide and another chemical (see sec. 2, para. 1, pg. 952,

Ollis); and adding the chemical information to the data profile (see sec. 3, pg. 954, Ollis).

As to claim 23,

Ollis teaches recording weather conditions at the defined geographic area of the particular crop (see sec. 2, para. 1, pg. 952, Ollis); and adding the weather information to the data profile (see sec. 3, pg. 954, Ollis).

With respect to claim 24,

Ollis discloses a system for tracing a crop (see sec. 1, para. 1, pg. 951), the system comprising:

data storage device for electronically recording at least one of planting information, growing information, harvesting information, chemical application information, and weather information about the characteristics of a particular crop from a defined geographic area (see sec. 1, para. 1-2, pg. 951, Ollis);

a reader for electronically recording a storage identifier associated with one or more storage volumes for holding the particular crop in a segregated manner after harvesting (see sec. 2, para. 1, pg. 952, Ollis); and

a data processor for forming a respective data profile for the particular crop based on the recorded information and associating the formed data profile with the storage identifier for each of the one or more storage volumes for holding the particular crop (see sec. 3.1, pg. 953, Ollis).

Ollis does not explicitly indicate claimed volumes.

Saich discloses claimed volumes (see Table I).

It would have been obvious to one ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because volumes of Saich's teaching would have allowed Ollis system for information on soil moisture for mature forests in summer, as suggested by Saich at page 206, right, para.

2.

As to claim 25,

Ollis teaches wherein the reader is adapted to record transit information regarding a first time and a first location of the discharging of the particular crop into an intermediate vessel and a second time and a second location the removing the particular crop from the intermediate vessel (see sec. 2, page 952, Ollis); and

the data processor associating a data profile, including the recorded transit information, with the storage identifier of the one or more storage volumes for receiving the particular harvested crop (see sec. 4, page 955, Ollis).

As to claim 26,

Ollis teaches a storage volume having a data profile storage device for storing a data profile of the particular crop, the data profile storage device comprising at least one of a barcode, an radio-frequency tag, an electronic tag, and an electronic data memory device carried in or on each of the one or more storage volumes (see sec. 4, pg. 955, Ollis).

As to claim 27,

Ollis teaches a transmitter for electronically transmitting the data profile of the particular crop to one or more potential users of the particular crop via a

Art Unit: 2167

communications network to facilitate sales to, acquisition by, deliveries to, or process control of the particular crop by one or more potential users (see sec. 4, pg. 954, Ollis).

As to claim 28,

Ollis teaches a data receiver for receiving adjacent crop information regarding an adjacent crop in an adjacent location with respect to the particular crop, the adjacent crop information including one or more of a precursor identity for the particular crop, a seed identity, a stock identity, the seed source identity, a stock source identity, a seed parentage, a stock parentage, a precursor genetic history, a crop maturity, a planting date, a planting location, the soil conditions at a planting time and date, and any chemical application for the adjacent crop (see sec. 2, para. 1, pg. 952, Ollis); and a data storage manager for combining the adjacent crop information into the data profile for the particular crop (see sec. 4, pg. 955, Ollis).

As to claim 29,

Ollis teaches a transmitter for sending a load of profile data and corresponding storage identifier in response to a triggering event associated with operation of an agricultural machine (see sec. 4, pg. 954, Ollis).

As to claim 30,

Ollis teaches wherein the triggering event comprises an operator request or command to shut-down or turn-off an agricultural machine (see sec. 3.2, pg. 954, Ollis).

As to claim 31,

Ollis teaches wherein the defined geographic area is selected from the group consisting of a field location, a sub-field location, geographic coordinates defining the

Art Unit: 2167

field location, geographic coordinates defining the sub-field location, and geographic coordinates defining a boundary of a region (see sec. 3.2, pg. 954, Ollis).

As to claim 32,

Ollis teaches a data input device for collecting at least one of the planting information, the growing information, the harvesting information, the chemical application information, and the weather information about the characteristics of the particular crop from the defined geographic area (see sec. 3.1, pg. 953, Ollis).

As to claim 33,

Ollis teaches wherein the data input device includes at least one of a location-determining receiver, a user interface, sensor input, machine electronics, an input port, the reader, a reader for reading a seed package label, and a reader for reading a container tag (see sec. 2, pg. 952, Ollis).

As to claim 34,

Ollis teaches wherein the data input device includes at least one of the location-determining receiver, a planting information input device, a growing information input device, a harvesting information input device, and a container identification device (see sec. 3.2, pg. 954, Ollis).

As to claim 35,

Ollis teaches a data management system for managing data profiles of corresponding particular crops (see sec. 4, pg. 955, Ollis); a transceiver for transmitting the formed data profile via an electromagnetic signal (see sec. 2, para. 1, pg. 952,



Art Unit: 2167

Ollis); and a wireless interface for receiving the transmitted data profile and forwarding it to the data management system (see sec. 3.2, pg. 954, Ollis).

As to claim 36,

Ollis teaches an agricultural machine for housing a grower data processing system comprising the data storage device, the data processor, and the reader (see sec. 2, para. 1, pg. 952, Ollis).


As to claim 37,

Ollis teaches wherein the data processor comprises an arranger for forming a respective data profile for the particular crop based on the recorded information and an assignment module for associating the formed data profile with the storage identifier for each of the one or more storage volumes for holding the particular crop (see sec. 2, pg. 952, Ollis).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad Ali whose telephone number is (571) 272-4105. The examiner can normally be reached on Monday-Thursday (7:30 am-6:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Mohammad Ali  
Primary Examiner  
Art Unit 2167

MA  
December 25, 2004